

### **REMARKS**

This Amendment is responsive to the Final Office Action of May 28, 2008. Applicant respectfully submits that this amendment should be entered because it, Applicant believes, places the pending claims in condition for immediate allowance or removes issues for appeal.

#### **Status of Claims**

Claim 11 is pending in this application. This claim stood rejected.

#### **Rejection Under 35 USC § 102**

Claim 11 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Chenchik et al., WO 98/53103 ("Chenchik"). This rejection is respectfully traversed.

Claim 11 requires, among other things, an array of multiple oligonucleotides with different base sequences fixed on to known and separate positions on a support substrate . . . oligonucleotides are only biological stress related genes or complementary sequences to . . . genes and . . . multiple oligonucleotides are classified according to their gene functions." In addition, the claim requires "the support substrate has fixation regions divided according to said classification, wherein the classification is (1) internal and external standard genes for proofreading, (2) stress-related genes related to heat shock protein and hormone genes that decreases under stress, (3) cytokine genes, (4) genes that induce cell death, (5) genes related to anti-inflammation and wound healing and genes related to cell growth inhibition, (6) transcription factor and signaling molecules related to immune response, (7) induction of cytokine, which causes cell injury, (8) transcription factor and signaling molecules related to growth inhibition, and (9) transcription factor and signaling molecules related to stress response."

At the outset, Applicant respectfully submits that it maintains its arguments against Chenchik presented in the amendment filed with the Patent Office on August 30, 2007 in response to the Office Action of May 2, 2007, which arguments are incorporated herein by reference. Chenchik cannot anticipate claim 11 because it fails to teach, either expressly or inherently, each and every element as set forth in claim 11, and does not enable one of ordinary skill in the art to make and use the claimed invention. The present inventors focused on specific categories of genes (1)-(9), as set forth in lines 7-14 of claim 11, based on analytical experiments of human blood and found that arranging genes according to the

specific categories allows stresses to be readily assessed enabling a quick assay for determining the state of stress.

The Examiner points to Chenchik, page 6, lines 17-19, 23-27, line 28 through page 7, line 8, page 8, lines 5-30, page 9, lines 11-17 and 24-29, and appears to assert that these specific portions teach the recitation “an array of multiple oligonucleotides with different base sequences fixed onto known and separate positions on a support substrate” and “multiple oligonucleotides are only biological stress related genes or complementary sequences to said genes.”

Applicant respectfully traverses. The teachings about “surface on which the pattern of spots is present . . .” does not teach or disclose “multiple oligonucleotides . . . fixed onto known and separate positions on a support substrate.” Chenchik also fails to teach that multiple oligonucleotides are only biological stress related genes as required by the instant claims. Specifically, Chenchik at page 9, lines 11-17 and 24-29, and also at page 10, lines 20-30, is explicit about the arrays taught therein as containing multiple oligonucleotides that are not just biological stress related genes. For example, it states that “usually the majority of the polynucleotide spots on the array are made up of polynucleotide probes that all correspond to the same kind or kind of gene . . . the pattern include spots comprising genomic DNA, housekeeping genes, negative and positive control genes, and the like . . . they are calibrating or control genes.” See human stress array, Table 5. Thus, in contrary to the Examiner’s allegations, human stress arrays (Table 5 as being the example) include spots comprising genomic DNA, housekeeping genes, negative and positive control genes, and the like. . .they are calibrating or control genes.” Claim 11 requires that “multiple oligonucleotides are only biological stress related genes”

Moreover, Chenchik fails to teach (1) internal and external standard genes for proofreading, (2) stress-related genes related to heat shock protein and hormone genes that decreases under stress, (3) cytokine genes, (4) genes that induce cell death, (5) genes related to anti-inflammation and wound healing and genes related to cell growth inhibition, (6) transcription factor and signaling molecules related to immune response, (7) induction of cytokine, which causes cell injury, (8) transcription factor and signaling molecules related to growth inhibition, and (9) transcription factor and signaling molecules related to stress response. In the present invention, the classified oligonucleotides are fixed, as a group, to an array substrate at the divided fixation regions.

Applicant respectfully submits that Chenchik fails to teach each and every limitation of claim 11, either expressly or inherently, which teaching is required for the reference to anticipate the claimed invention.

The Examiner contends at page 5 of the Office Action that “applicants have not contested the finding that Chenchik et al. teaches the nucleic acid sequences according to gene function (1)-(9) . . . nor that Chenchik et al. teaches that these nucleic acid sequences are affixed to an array substrate at distinct locations.” The Examiner may have overlooked Applicant’s previous remarks. See the amendment filed with the Patent Office on August 30, 2007. Further, in the Office Action of May 2, 2007, the Examiner admitted that “Table 5 . . . [only] fairly reads on the classification of gene functions (1)-(9) as set forth in lines 7-14 of claim 11 . . .”

For a prior art reference to anticipate, it must “necessarily,” not merely “fairly” read on each and every element of the claimed invention. The Examiner did not point to page and line number in Chenchik for each of the genes (1)-(9) as set forth in lines 7-14 of claim 11. If such facts are within the Examiner's personal knowledge, the Examiner is requested to make them part of the record by way of affidavit as required by 37 C.F.R. §1.104(d)(2).

It is Examiner’s burden to establish anticipation by showing each and every limitation in a single prior art reference. The Examiner has not met this burden. In view of the Examiner’s admission in the Office Action of May 2, 2007 and noncompliance with MPEP § 707.07(f) by failing to answer the substance of applicant’s arguments made in the amendment filed with the Patent Office on August 30, 2007, Applicant respectfully submits that the final rejection is premature and request reconsideration and withdrawal of the finality of the Office Action.

#### Conclusion

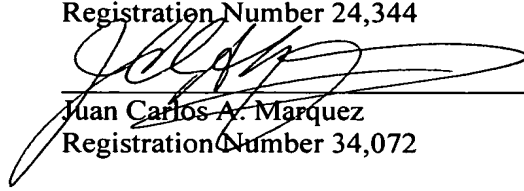
For the reasons presented above, the claim pending in the application are believed by Applicant to define patentable subject matter and should be passed to issue at the earliest possible time. A Notice of Allowance is requested.

If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the present application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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